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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/851,451

05/08/2001

Jong-Kwang Kim

678-0657

4167

66547 7590 10/08/2008  
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EXAMINER

FLANDERS, ANDREW C

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

10/08/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/851,451	<b>Applicant(s)</b> KIM, JONG-KWANG	
	<b>Examiner</b> ANDREW C. FLANDERS	<b>Art Unit</b> 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 – 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tran (U.S. Patent 6,359,987) in view of Tan (U.S. Patent 6,449,371).

Regarding **Claim 1**, Tran discloses:

An audio output control apparatus in a mobile terminal having a player for reproducing audio data into an audio signal (Fig. 1, computers can be moved from location to location and thus are mobile; additionally laptop computers are well known and are also mobile), comprising:

an ear jack (Fig. 2 element 66; including sensing circuit 64).

Tran does not explicitly disclose that the ear jack is for transferring the audio signal output from the player to one of an earphone and an external speaker.

Tran does disclose impedance detection circuitry coupled to detect whether the attached speakers are passively driven or actively driven. If they are passively driven, the amplification is increased and if they are powered, they amplification is decreased (see Fig. 4 and its description). Tran further discloses non-amplified speakers and amplified speakers (col. 7). Tran does not disclose earphones, however, Examiner takes official notice that passively driven earphones are notoriously well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to attach passively driven earphones to the computer system to enjoy sound without disturbing others.

The attachment of the actively driven speakers and passive earphones to the system of Tran further discloses:

an ear jack (fig. 2 element 66; including sensing circuit 64) for transferring the audio signal output from the player to an audio output device being one of an earphone (the passively driven earphones) and an external speaker (the actively driven speakers; col. 7),

an ear jack connector, being inserted in the ear jack and connecting the audio output device to the ear jack (plug from the speakers applied to the audio connector 66), the ear jack generating one of a high level voltage and a low level voltage upon insertion of the ear jack connector (voltages are measured as shown in Fig. 4 156 across the speaker load, thus upon connection a voltage must occur in the ear jack

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which can be read, this can be said to be 'generated' upon insertion; additionally sensing circuit 64 generates a signals which drives the SENSE signal, the output is equal to 1 if an active speaker is connected and 0 if a passive speaker is connected; col. 6 lines 55-65; these are also regarded as high and low indicating their voltages; see col. 7 as well as the voltage discussion of this signal in col. 6)

a controller (i.e. controller 44) for determining the audio output device connected to the ear jack depending on the high or low level voltage (reads the SENSE signal) and controlling an audio gain of the player according to the determined result (i.e. the gain is lowered for the amplified speakers and increased for the passively driven headphones depending on the SENSE signal).

Furthermore, Tran does not explicitly disclose that the computer player is an MP3 player.

Tan discloses a computer that is configured to reproduce an MP3 audio signal.

It would have been obvious to one of ordinary skill in the art to modify Tran's computer to playback MP3 audio files as taught by Tan. One would have been motivated to do so to enable Tran's computer to play commonly available music files. The MP3 format is greatly compressed and thereby results in smaller files allowing music to be stored on the Tran system in much less space.

Regarding **Claim 2**, in addition to the elements stated above regarding claim 1, the combination fails to explicitly disclose:

wherein the ear jack connector comprises one of a first ear jack connector connecting the earphone to the ear jack and a second ear jack connector for connecting the external speaker to the ear jack.

However, Examiner takes official notice that modifying the combination to include multiple inputs, one for the speaker and one for the headphone set would be notoriously well known in the art. Simply applying a Y cable connector to the device would meet this limitation and perform the exact same functionality as disclosed by Applicant in Applicant's Fig. 1 (the Y connector receiving inputs from 118 and 122, and relaying them in place of 120 and 124 to 106). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply these features to the combination. One would have been motivated to do so to extend the features and inputs of the combination in order to accommodate multiple inputs so that multiple users may use the device, or multiple input types may be adapted to fit the jack. (i.e. 1/8" jack and a 1/4" jack).

Regarding **Claim 3** , in addition to the elements stated above regarding claim 2, the combination further discloses:

wherein the controller increases the audio gain when the external speaker is connected to the ear jack, and the controller decreases the audio gain when the earphone is connected to the ear jack (i.e. the gain is lowered for the amplified speakers and increased for the passively driven headphones; Fig. 4 and col. 7).

Regarding **Claim 4**, in addition to the elements stated above regarding claim 2, the combination further discloses:

wherein the ear jack generates the high level voltage upon insertion of the first ear jack connector (i.e. speakers are inserted into this jack of the modification, generating a SENSE 1) and generates the low level voltage upon insertion of the second ear jack connector (i.e. passive headphones are inserted into the jack of the modification generating a SENSE 0).

Regarding **Claims 5 and 6**, claims 5 and 6 claim the same limitations as the claims above and are rejected under the same grounds.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW C. FLANDERS whose telephone number is (571)272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Flanders/

Art Unit 2614

Patent Examiner

/CURTIS KUNTZ/

Supervisory Patent Examiner, Art Unit 2614